

## ABSTRACT OF THE DISCLOSURE

An electronic control module provides dual insulation layers between an internal line voltage and a separate tool housing that serves as a heat sink, thereby allowing versatility in mounting the electronic control module within the tool housing interior, and thereby also eliminating the risk of electrical shock to a user making contact with an exterior tool housing surface. The control module includes a power device, connected to a line voltage, and a thermal pad. The power device provides a first layer of electrical insulation between the line voltage and an external tab of the power device while the thermal pad provides a second layer of electrical insulation. The combined first and second layers provide a minimum amount of electrical insulation between the line voltage and the tool housing thereby preventing electrical shock. Alternatively, the thermal pad is provided between the control module and the tool housing.